

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:	Hassan Hagirahim, et al	Examiner:	Duc T Duong
Serial No.:	09/841,541	Group Art Unit:	2663
Filed:	April 24, 2001	Att'y Docket:	2100.015200
For:	Method Of Transmitting Packets In A Mobile 3g Network System	Client Docket:	Hagirahim 11-8

**APPEAL BRIEF****Customer No.: 46290**

Filed electronically on July 10, 2006

MS After Final  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellants hereby submit this Appeal Brief to the Board of Patent Appeals and Interferences in response to the final Office Action dated February 7, 2006. A Notice of Appeal was filed on May 5, 2006 and received by the Office on May 9, 2006. The two-month date for response is July 9, 2006, which is Sunday. Since this Appeal Brief is filed on or before Monday, July, 10, 2006 it is timely filed.

The Commissioner is authorized to deduct the fee for filing this brief (\$500) from **Williams, Morgan & Amerson's P.C. Deposit Account 50-0786/2100.015200**. However, should any fees under 37 C.F.R. §§1.16 to 1.21 or otherwise be required for any reason, the Commissioner is authorized to deduct said fees from the above account.

## **I. REAL PARTY IN INTEREST**

The present application is owned by Lucent Technologies, Inc. The assignment of the present application to Lucent Technologies, Inc., is recorded at Reel 011779, Frame 0788.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any related appeals and/or interferences that might affect the outcome of this proceeding.

## **III. STATUS OF THE CLAIMS**

Claims 1-23 are pending in the present application. Claims 1-10 and 12-23 are allowed. Applicants appreciate the allowance of claim 1-10 and 12-23. Claim 11 stands rejected for allegedly being anticipated by U.S. Patent No. 6,963,918 B1, Leung (hereinafter *Leung*).

## **IV. STATUS OF AMENDMENTS**

Applicants believe that there were no amendments filed subsequent to the Final Office Action.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

In general, the present invention is directed to transmitting packets in a mobile network system, and, more particularly, to transmitting information to a mobile telephone in the packet data network, such as mobile Internet. There is one independent claim at issue in the current appeal: claim 11.

Independent claim 1 is generally directed to a method of transmitting a packet received at a Foreign Agent associated with a Packet Data Service Node where the packet has a source IP address of a mobile station that points to a geographically remote Home Agent and a destination IP address. It comprises the steps of caching IP addresses in memory, comparing the destination IP address of the received packet with the IP addresses in memory, and if no match is found, querying a Policy Server for a match, and forwarding the received packet with the IP address of the Foreign Agent associated with the Packet Data Service Node as the source IP address when the destination address of the received packet matches the IP address in memory or Policy Server. By way of example only, at least portions of the invention are described at p. 3-10 and Figure 3.

Independent claim 6 is generally directed to a method of transmitting a packet received at a Foreign Agent associated with a Packet Data Service Node where the packet has a source IP address of a mobile station that points to a geographically remote Home Agent and a destination IP address. It comprises the steps of caching in memory Universal Resource Locator (URL) names, comparing the URL name of the received packet with the URL names in memory, and if no match is found, querying a Policy Server and forwarding the received packet with the IP address of the Foreign Agent associated with the Packet Data Service Node as the source IP address when the URL name of the received packet matches the URL name in memory or Policy Server. By way of example only, at least portions of the invention are described at 3-10 and Figure 3.

Independent claim 11 is generally directed to a method of transmitting a packet in a wireless network. The method comprises receiving the packet from a mobile station at a node for routing the received packet to a service provider server, determining a predetermined policy

for at least one of a user and a session associated with the packet, and selectively causing the node to assume a role of a home network for the mobile station-based on the predetermined policy. By way of example only, at least portions of the invention are described at p. 3-10 and Figure 3.

Independent claim 121 is generally directed to a method of transmitting a packet in a wireless network. The method comprises receiving the packet from a mobile station at a node for routing the received packet to a service provider server, causing the node to assume a role of a home network for the mobile station, in response to receiving the packet at the node, receiving one or more response packets at the node from the service provider server without intervention from the home network, directly forwarding the one or more response packets to a destination server for the mobile station without sending the one or more response packets to the home network, and receiving, at a Foreign Agent associated with a Packet Data Service Node, the packet with a source network layer address of the mobile station that points to a geographically remote Home Agent associated with the home network and a destination network layer address. By way of example only, at least portions of the invention are described at p. 3-10 and Figure 3.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Appellants respectfully request that the Board review and overturn the rejection present in this case. The following issues are presented on appeal in this case:

(A) Whether claim 11 is anticipated by U.S. Patent No. 6,963,918 B1 (hereinafter *Leung*).

## VII. ARGUMENT

### A. Claim 11 is not anticipated by *Leung*

#### 1. Legal Standards

As the Board well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim. *In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990).

Claim 11 stands rejected under 35 U.S.C. §102(e) as allegedly being anticipated by *Leung*. Applying the legal standards set forth above, it is respectfully submitted that the Examiner erred in rejecting independent claim 11. In the Advisory Office Action, the Examiner maintained the anticipation rejection of claim 11 over *Leung*. Appellants next address the rejection of claim 11.

With regard to independent claim 11, Applicants describe and claim, a method of transmitting a packet in a wireless network comprising determining a predetermined policy and selectively causing a node to assume a role of a home network based on the predetermined policy for a mobile station (MS). In other words, a packet may be treated in one of at least two different ways. One treatment calls for following a Standard, such as the mobile IP standards. The other treatment calls for reverting to a proxy mode, *e.g.*, a default role in case of a particular service. See, for example, Applicant's specification, on page 8, lines 9-13.

In particular, claim 11, calls for, determining a predetermined policy for at least one of a user and a session associated with a packet and selectively causing a node, such as a Packet Data Service Node (PDSN), to assume a role of a home network for a mobile station (MS) based on the predetermined policy. When the node assumes the role of the home network, the node

receives one or more response packets from a service provider server without intervention from the home network. To determine how to handle a user's packets, the node may access a policy server. The policy server may be set to apply a proxy setting. For example, the predetermined policy may be obtained from the policy server to identify packets that are to be processed in accordance with the Standard and for transmission along the tunnel from the Home Agent. However, the packets that are to be processed according to a proxy mode, are therefore, not transmitted along the tunnel from the Home Agent. See, Applicant's specification, on page 8, lines 24-28 and Figure 3.

Likewise, the transmission route of packets of a specific session is determined by a predetermined policy. In one instance, the transmission route defined for the packets of a session will be as described in the Standards where packets from a mobile station that is connected to a Foreign Agent are routed to their destinations and responses are sent to the Home Agent first and then tunneled to the PDSN/Foreign Agent. In another instance, the transmission route defined for the packets of a session will be as described herein and will not be as defined in the Standards. In this instance, the PDSN assumes a proxy role where it receives the response directly without any intervention on the part of the Home Agent. See, for example, Applicant's specification, on page 9, line 22.

The Examiner relies upon the **Leung** reference to teach the above set-forth features of independent claim 11. The Applicants respectfully submit that **Leung** fails to teach one or more features set forth above in claim 11.

**Leung** is directed to a technique for optimizing voice over Internet Protocol (IP) in a mobile IP environment. See **Leung**, Col. 1, lines 6-9. **Leung** uses a local H.323 gateway rather

than a H.323 gateway on the home network to minimize the routing path for reducing latency in the voice traffic. See **Leung**, Col. 3, lines 34-38. The technique described by **Leung** maintains communications via a Foreign Agent at all times. Thus, in **Leung**, the Home Agent on the home network also stays in the connectivity.

By way of the background, independent claim 11 generally requires selectively causing a node to assume a role of a home network based on the predetermined policy. However, **Leung** fails to teach or suggest “selectively causing the node to assume the role of a home network.” To the contrary, the method described by **Leung** is only concerned with avoiding large distances between the home agent and the Foreign Agent to improve the routing path to optimize voice over IP in a mobile IP environment when a node roams to a Foreign Agent on a Foreign Network. This technique described by **Leung** thus avoids selecting an H.323 gateway to the PSTN that is located on the home network associated with a roaming node’s Home Agent. Instead, a local H.323 gateway identified by the Foreign Agent is discovered on the Foreign network. See **Leung**, Col. 4, lines 61-67. Since **Leung** maintains communications via a Foreign Agent at all times, the Home Agent on the home network also stays in the connectivity.

The Examiner relies on the care-of address for overcoming this deficiency. However, the care-of address is only related to the packet routing from the node instead. Based on the above-indicated legal standard, it is respectfully submitted that **Leung** fails to anticipate claim 11 since **Leung** discovers a local gateway instead of determining a predetermined policy.

**Leung** discloses that, typically, a node such as a mobile node obtains an IP address associated with a destination from an H.323 gateway **218** on the node's home IP data network **222**. **Leung** enables a local H.323 gateway **226** to be discovered by the mobile node **210**

initiating the call. By using a local H.323 gateway rather than an H.323 gateway on the home network when possible, the routing path is minimized. In this manner a Foreign Agent that supports Mobile IP is located on a foreign network and configured to enable a node visiting the Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway instead of receiving the packet from a mobile station at a node for routing the received packet to a service provider server, as claimed in claim 11.

In *Leung*, the mobile node registers with its Home Agent via a care-of address associated with the Foreign Agent at block 702. That is, in the packet routing of the opposite direction than set forth in claim 11, the Foreign Agent identified by the care-of address forwards the packet to the mobile node, as shown in *Leung*, at block 712. However, when a packet is received from the node, where the packet is addressed to the H.323 gateway and requests an IP address associated with a destination, an IP packet including voice information may be sent including the requested IP address. An IP packet addressed to the IP address and including voice information is forwarded to the node. The IP packet addressed to the IP address and including voice information may then be received from the node.

While the method shown in *Leung* and described with reference to FIG. 5 enables IP data packets to be received by a roaming node, FIG. 6 illustrates an optimum process flow diagram illustrating a return data flow path to the node that is optimized. A corresponding node with which the mobile node is communicating (e.g., PSTN gateway or other device) is notified of the care-of address of the mobile node at block 602. Each PSTN gateway preferably supports Mobile IP so that it may receive a mobile IP packet including the current care-of address of the mobile node. The corresponding node then tunnels IP data packets to the care-of address at block



**604.** The Foreign Agent identified by the care-of addresses then forwards the IP data packets to the mobile node at block 606. In this way, corresponding node may correspond directly with the Foreign Agent. However, when the IP address cannot be obtained from the local H.323 gateway 226, the IP address may be obtained from the H.323 gateway 218 on the home IP data network 222.

With the above understanding of *Leung* and claim 11, it is respectfully submitted that the Examiner erred in several respects in rejecting independent claim 11. In particular, *Leung* fails to teach or suggest “selectively causing a node to assume a role of a home network based on the predetermined policy.” At no point does *Leung* suggest such a methodology. The Examiner relies on the disclosure of the care-of address, in *Leung* as support for disclosure of this limitation. Appellants respectfully disagree. All that *Leung* discloses is that the care-of address is being used to identify the Foreign Agent when a node roams to a Foreign Agent on a Foreign Network. When possible, *Leung* does not select an H.323 gateway to the PSTN that is located on the home network associated with a roaming node’s Home Agent. Instead, a local H.323 gateway identified by the Foreign Agent is used on the Foreign network. Regardless of the H.323 gateway selected, *Leung* maintains communications via a Foreign Agent at all times, staying connected to the Home Agent on the home network. This disclosure does not anticipate.

Appellants respectfully assert that *Leung* does not teach, disclose or suggest determining a predetermined policy and selectively causing a node to assume a role of a home network based on the predetermined policy for a mobile station, as called for by claim 11. In asserting that this limitation is disclosed in *Leung*, the Examiner purports to draw an analogy between the teachings of *Leung* and the claimed subject matter. See Final Office Action, pages 2-3. The Examiner’s argument is flawed for several reasons. First, it is well established that to be an

anticipatory reference under §102(e), the reference must disclose identically each and every claim element. An **objective** reading of *Leung* leads to the inescapable conclusion that *Leung* is simply not concerned with selectively causing a node to assume a role of a home network based on the predetermined policy for a mobile station. Respectfully, any contention to the contrary is based upon an improper use of Appellants disclosure when viewing the disclosure of *Leung*. Accordingly, for this reason alone *Leung*, fails to anticipate claim 11. However, there are additional reasons, why *Leung* does not anticipate all elements of claim 11.

Claim 11 also requires determining a predetermined policy for at least one of a user and a session associated with the packet. This methodology is simply not disclosed nor suggested in *Leung*. Instead of determining a predetermined policy, *Leung* uses a mechanism for discovery of a local H.323 gateway located on a foreign network for a node that is roaming to send packets via a shortened route. *Leung* optionally obtains an IP address associated with a destination from an H.323 gateway 218 on the node's home IP data network 222 for the Foreign Agent 204. See *Leung* on Col. 5, lines 9-13. In other words, *Leung* enables a mechanism for discovery of a local H.323 gateway located on a foreign network for a node that is roaming to send packets via a shortened route. See *Leung* on Col. 6, lines 57-61. This mechanism of discovery is distinct from a predetermined policy. *Leung* is silent with regard to any policy, predetermined or not. For aforementioned reasons, claim 11 is not taught, disclosed, or suggested by *Leung*. Therefore, claim 11 is allowable for at least the reasons cited above.

Appellants have demonstrated that several elements of claim 11 are not taught, disclosed, or suggested by *Leung*. Accordingly, the Examiner erred in rejecting claim 11 and hence, all of the elements of claim 11 are not disclosed, taught, or suggested by *Leung*.

Appellants respectfully request the rejection of claim 11 over *Leung* be REVERSED because the prior art does not teach or suggest all of the elements of claim 11.

### **VIII. CLAIMS APPENDIX**

The claim that is the subject of the present appeal – claim 11 - is set forth in the attached “Claims Appendix.”

### **IX. EVIDENCE APPENDIX**

There is no separate Evidence Appendix for this appeal.

### **X. RELATED PROCEEDINGS APPENDIX**

There is no Related Proceedings Appendix for this appeal.

### **XI. CONCLUSION**

In view of the foregoing, it is respectfully submitted that the Examiner erred in not allowing all claims pending in the present application, claim 11, over the prior art of record. The undersigned may be contacted at (713) 934-4089 with respect to any questions, comments or suggestions relating to this appeal.

Respectfully submitted,

Date: July 10, 2006

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AGENT FOR APPELLANTS

## **CLAIMS APPENDIX**

1. (Previously Presented) A method of transmitting a packet received at a Foreign Agent associated with a Packet Data Service Node where the packet has a source IP address of a mobile station that points to a geographically remote Home Agent and a destination IP address comprising the steps of:

caching IP addresses in memory;

comparing the destination IP address of the received packet with the IP addresses in memory, and if no match is found, querying a Policy Server for a match; and

forwarding the received packet with the IP address of the Foreign Agent associated with the Packet Data Service Node as the source IP address when the destination address of the received packet matches the IP address in memory or Policy Server.

2. (Previously Presented) The method of claim 1 further comprising the step of forwarding the received packet with the source IP address of the mobile station when the destination address of the received packet does not match the IP address in memory or Policy Server.

3. (Previously Presented) The method of claim 1 wherein a tunnel is established between the Foreign Agent associated with the Packet Data Service Node and the Home Agent when the mobile station initiates a call further comprising the step of not forwarding the packet back along the tunnel when the destination address of the received packet matches the IP address in memory or Policy Server.

4. (Original) The method of claim 3 further comprising the step of taking down the tunnel when the destination IP address of the received packet matches the IP address in memory.

5. (Previously Presented) The method of claim 4 wherein the Foreign Agent associated with the Packet Data Service Node takes down the tunnel.

6. (Previously Presented) A method of transmitting a packet received at a Foreign Agent associated with a Packet Data Service Node where the packet has a source IP address of a mobile station that points to a geographically remote Home Agent and a destination IP address comprising the steps of:

    caching in memory Universal Resource Locator (URL) names;

    comparing the URL name of the received packet with the URL names in memory, and if no match is found, querying a Policy Server;

    forwarding the received packet with the IP address of the Foreign Agent associated with the Packet Data Service Node as the source IP address when the URL name of the received packet matches the URL name in memory or Policy Server.

7. (Original) The method of claim 6 further comprising the step of forwarding the received packet with the IP address of the mobile station when the URL name of the received packet does not match the URL name in memory or Policy Server.

8. (Previously Presented) The method of claim 6 wherein a tunnel is established between the Foreign Agent associated with the Packet Data Service Node and the Home Agent

when the mobile station initiates a call further comprising the step of not forwarding the packet back along the tunnel when the URL name of the received packet matches the URL name in memory or Policy Server.

9. (Previously Presented) The method of claim 8 further comprising the step of taking down the tunnel when the destination URL name of the received packet matches the URL name in memory or Policy Server.

10. (Previously Presented) The method of claim 9 wherein the Foreign Agent associated with the Packet Data Service Node takes down the tunnel.

11. (Previously Presented) A method of transmitting a packet in a wireless network, the method comprising:

receiving the packet from a mobile station at a node for routing the received packet to a service provider server;

determining a predetermined policy for at least one of a user and a session associated with the packet; and

selectively causing the node to assume a role of a home network for the mobile station based on the predetermined policy.

12. (Previously Presented) A method of transmitting a packet in a wireless network, the method comprising:

receiving the packet from a mobile station at a node for routing the received packet to a service provider server;

causing the node to assume a role of a home network for the mobile station;

in response to receiving the packet at the node, receiving one or more response packets at the node from the service provider server without intervention from the home network;

directly forwarding the one or more response packets to a destination server for the mobile station without sending the one or more response packets to the home network; and

receiving, at a Foreign Agent associated with a Packet Data Service Node, the packet with a source network layer address of the mobile station that points to a geographically remote Home Agent associated with the home network and a destination network layer address.

13. (Previously Presented) The method of claim 12, further comprising:

obtaining the source network layer address from the received packet.

14. (Previously Presented) The method of claim 13, further comprising:

causing the service provider server to send the received packet to the destination server.

15. (Previously Presented) The method of claim 14, further comprising:

determining whether the destination network layer address of the received packet matches a network layer address in a memory or a Policy Server; and

if so, forwarding the received packet with the network layer address of the Packet Data Service Node as the source network layer address.



16. (Previously Presented) The method of claim 15, further comprising:  
caching network layer addresses in the memory.

17. (Previously Presented) The method of claim 16, further comprising:  
comparing the destination network layer address of the received packet with the network  
layer addresses in the memory; and  
if no match is found for the destination network layer address in the memory, querying  
the Policy Server for a match.

18. (Previously Presented) The method of claim 17, further comprising:  
in response to the mobile station initiating a call, establishing a tunnel between the  
Foreign Agent associated with the Packet Data Service Node and the Home Agent.

19. (Previously Presented) The method of claim 18, further comprising:  
if the destination network layer address of the received packet does not match the  
network layer address in the memory or Policy Server, not forwarding the packet back along the  
tunnel.

20. (Previously Presented) The method of claim 18, further comprising:  
if the destination network layer address of the received packet matches the network  
address in the memory, terminating the tunnel.

21. (Previously Presented) The method of claim 11, further comprising:

determining a criteria indicative of treatment of the packet based on the predetermined policy; and

selectively transmitting the packet along a tunnel from the home network based on said criteria.

22. (Previously Presented) The method of claim 21, further comprising:

in response to receiving the packet at the node, receiving one or more response packets at the node from the service provider server without intervention from the home network.

23. (Previously Presented) The method of claim 22, further comprising:

if the criteria indicates not to send the packet to the home network for a particular service, forwarding the one or more response packets to a destination server for the mobile station instead of sending the one or more response packets to the home network.


**BEFORE THE OFFICE OF ENROLLMENT AND DISCIPLINE  
UNITED STATES PATENT AND TRADEMARK OFFICE**

**LIMITED RECOGNITION UNDER 37 CFR § 11.9(b)**

Dr. Sanjeev Kumar Singh is hereby given limited recognition under 37 CFR § 11.9(b) as an employee of Williams, Morgan & Amerson, P.C., to prepare and prosecute patent applications for clients of Williams, Morgan & Amerson, P.C. in which a member of Williams, Morgan & Amerson, P.C., is the attorney of record. This limited recognition shall expire on the date appearing below, or when whichever of the following events first occurs prior to the date appearing below: (i) Dr. Sanjeev Kumar Singh ceases to lawfully reside in the United States, (ii) Dr. Sanjeev Kumar Singh's employment with Williams, Morgan & Amerson, P.C. ceases or is terminated, or (iii) Dr. Sanjeev Kumar Singh ceases to remain or reside in the United States on an H-1B visa.

This document constitutes proof of such recognition. The original of this document is on file in the Office of Enrollment and Discipline of the U.S. Patent and Trademark Office.

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